

**Table 320: Muons in Element 116**

Z	A [g/mol]	$\rho$ [g/cm <sup>3</sup> ]	I [eV]	a	$k = m_s$	$x_0$	$x_1$	$\bar{C}$	$\delta_0$
116 (Un)	[293.200 (8)]	??	1213.0	0.29132	3.0000	0.7064	3.0000	6.7681	0.00
T	p [MeV/c]	Ionization	Brems	Pair prod [MeV cm <sup>2</sup> /g]	Photonucl	Total	CSDA range [g/cm <sup>2</sup> ]		
10.0 MeV	$4.704 \times 10^1$	3.432				3.432	$1.750 \times 10^0$		
14.0 MeV	$5.616 \times 10^1$	2.782				2.782	$3.056 \times 10^0$		
20.0 MeV	$6.802 \times 10^1$	2.245				2.245	$5.479 \times 10^0$		
30.0 MeV	$8.509 \times 10^1$	1.794				1.794	$1.052 \times 10^1$		
40.0 MeV	$1.003 \times 10^2$	1.559				1.560	$1.653 \times 10^1$		
80.0 MeV	$1.527 \times 10^2$	1.214				1.214	$4.643 \times 10^1$		
100. MeV	$1.764 \times 10^2$	1.155				1.155	$6.335 \times 10^1$		
140. MeV	$2.218 \times 10^2$	1.100				1.100	$9.899 \times 10^1$		
200. MeV	$2.868 \times 10^2$	1.081	0.000			1.081	$1.542 \times 10^2$		
206. MeV	$2.933 \times 10^2$	1.081	0.000			1.081	<i>Minimum ionization</i>		
300. MeV	$3.917 \times 10^2$	1.096	0.000		0.000	1.096	$2.462 \times 10^2$		
400. MeV	$4.945 \times 10^2$	1.124	0.000		0.000	1.125	$3.363 \times 10^2$		
800. MeV	$8.995 \times 10^2$	1.227	0.001		0.000	1.229	$6.754 \times 10^2$		
1.00 GeV	$1.101 \times 10^3$	1.264	0.002		0.000	1.267	$8.356 \times 10^2$		
1.40 GeV	$1.502 \times 10^3$	1.322	0.003		0.000	1.326	$1.144 \times 10^3$		
2.00 GeV	$2.103 \times 10^3$	1.382	0.005		0.001	1.389	$1.585 \times 10^3$		
3.00 GeV	$3.104 \times 10^3$	1.449	0.009	0.003	0.001	1.463	$2.286 \times 10^3$		
4.00 GeV	$4.104 \times 10^3$	1.493	0.014	0.006	0.001	1.516	$2.957 \times 10^3$		
8.00 GeV	$8.105 \times 10^3$	1.592	0.034	0.025	0.003	1.655	$5.472 \times 10^3$		
10.0 GeV	$1.011 \times 10^4$	1.621	0.046	0.037	0.004	1.708	$6.661 \times 10^3$		
14.0 GeV	$1.411 \times 10^4$	1.661	0.070	0.061	0.005	1.798	$8.942 \times 10^3$		
20.0 GeV	$2.011 \times 10^4$	1.701	0.109	0.102	0.007	1.920	$1.217 \times 10^4$		
30.0 GeV	$3.011 \times 10^4$	1.743	0.178	0.183	0.010	2.116	$1.713 \times 10^4$		
40.0 GeV	$4.011 \times 10^4$	1.770	0.252	0.273	0.014	2.310	$2.165 \times 10^4$		
80.0 GeV	$8.011 \times 10^4$	1.831	0.570	0.671	0.027	3.101	$3.655 \times 10^4$		
100. GeV	$1.001 \times 10^5$	1.850	0.738	0.887	0.033	3.510	$4.261 \times 10^4$		
110. GeV	$1.103 \times 10^5$	1.858	0.825	0.997	0.037	3.718	<i>Muon critical energy</i>		
140. GeV	$1.401 \times 10^5$	1.878	1.083	1.330	0.046	4.340	$5.285 \times 10^4$		
200. GeV	$2.001 \times 10^5$	1.907	1.623	2.035	0.066	5.633	$6.496 \times 10^4$		
300. GeV	$3.001 \times 10^5$	1.940	2.543	3.210	0.099	7.794	$8.000 \times 10^4$		
400. GeV	$4.001 \times 10^5$	1.963	3.494	4.430	0.132	10.021	$9.129 \times 10^4$		
800. GeV	$8.001 \times 10^5$	2.019	7.411	9.430	0.267	19.130	$1.197 \times 10^5$		
1.00 TeV	$1.000 \times 10^6$	2.038	9.420	11.989	0.335	23.785	$1.291 \times 10^5$		
1.40 TeV	$1.400 \times 10^6$	2.066	13.444	17.089	0.475	33.076	$1.433 \times 10^5$		
2.00 TeV	$2.000 \times 10^6$	2.096	19.591	24.874	0.687	47.250	$1.584 \times 10^5$		
3.00 TeV	$3.000 \times 10^6$	2.131	29.844	37.805	1.049	70.832	$1.756 \times 10^5$		
4.00 TeV	$4.000 \times 10^6$	2.156	40.225	50.875	1.417	94.676	$1.877 \times 10^5$		
8.00 TeV	$8.000 \times 10^6$	2.217	82.037	103.402	2.941	190.600	$2.169 \times 10^5$		
10.0 TeV	$1.000 \times 10^7$	2.237	103.089	129.803	3.723	238.855	$2.263 \times 10^5$		
14.0 TeV	$1.400 \times 10^7$	2.268	145.078	182.482	5.326	335.156	$2.403 \times 10^5$		
20.0 TeV	$2.000 \times 10^7$	2.301	208.394	261.836	7.782	480.316	$2.552 \times 10^5$		
30.0 TeV	$3.000 \times 10^7$	2.340	313.904	393.843	12.022	722.111	$2.721 \times 10^5$		
40.0 TeV	$4.000 \times 10^7$	2.367	419.781	526.153	16.360	964.663	$2.840 \times 10^5$		
80.0 TeV	$8.000 \times 10^7$	2.435	843.235	1055.754	34.453	1935.879	$3.127 \times 10^5$		
100. TeV	$1.000 \times 10^8$	2.458	1055.080	1320.790	43.790	2422.120	$3.219 \times 10^5$		